FIG. 7. The flat surface 126 extends across the entire top of the slider. However, the front end of the flexure 128 is bent at sections 130 and 132, as shown in FIG. 14B to allow the flexure to come down by a distance substantially equivalent to the height of the load dimple 76. In this way, the flexure 128 contacts the flat top surface 126 of the slider 122. The slider is bonded to the bent sections 130 and 132 by adhesive fillets 134 and 136. The flat contact surfaces of flexure 128 and flat surface 126 at the top of the slider are also bonded together by adhesive. By using a flat surface slider, the slider requires less machining, thus realizing a savings in time and labor costs as well as a reduction in possible breakage and error during production.

By virtue of this invention, a single integral piece is formed with a load beam and flexure, thereby realizing a significant savings in material and labor. Alignment of the load beam and flexure and welding of the separate parts are eliminated. Certain critical tolerances that were required in former load beam/flexure assemblies are no longer needed thereby enhancing the assembly process. The design allows the separation of the load transfer function from the gimbaling action which eliminates the weak bending characteristic found with prior art suspensions. It should be understood that the parameters, dimensions and materials, among other things, may be modified within the scope of the invention. For example, the slider design with the step and platform configuration disclosed herein can be used with a "30" nanoslider suspension or other size suspensions.

What is claimed is:

1. A magnetic head suspension assembly including an air bearing slider and at least one transducer disposed on said slider for transducing data that is recorded and read out from a surface of a rotating magnetic disk drive comprising:

a single integral planar piece of a specified thickness comprising,

a load beam section formed with a narrowed end;

a flexure section formed with two spaced narrow legs defining a cutout portion therebetween, said legs extending from said narrowed end of said load beam section, and a lateral ear spaced from said load beam section connecting said legs;

a tongue extending from said end of said narrowed load beam section, said tongue being disposed between said legs of said flexure section, said tongue having a free end within said flexure section, said tongue being formed with a load dimple;

said air bearing slider being bonded to said lateral ear and in contact with said load dimple;

whereby load transfer is effectively separated from the gimballing action of said slider so that pitch and roll stiffness is effectively reduced.

2. An assembly as in claim 1, wherein said head slider has a top non-air bearing surface attached to said flexure section.

3. An assembly as in claim 2, including means formed with said lateral ear for supporting said attached head slider.

4. An assembly as in claim 3, wherein said supporting means comprises outriggers or a split tongue.

5. An assembly as in claim 3, wherein said supporting means comprises said lateral ear that connects said narrow legs.

6. An assembly as in claim 2, wherein said slider is about 0.0110 inch high, 0.0400 inch long and 0.0200–0.0260 inch wide.

7. An assembly as in claim 2, wherein said top non-air bearing surface of said slider is formed with a platform and step adjacent to said platform.

8. An assembly as in claim 7, wherein said platform of said slider is about 0.0336 inch long and said step is about 0.0015 inch high.

9. An assembly as in claim 2, including a load dimple formed in said tongue.

10. An assembly as in claim 9, wherein said load dimple is hemispherical in shape and faces down into contact with said top surface of said slider.

11. An assembly as in claim 1, wherein said single integral planar piece including said tongue is about 0.0012 to 0.0015 inch thick and said narrow legs are about 0.0010 inch thick.

12. An assembly as in claim 1, wherein said load beam section is shaped as a truncated triangle.

13. An assembly as in claim 1, including a mount section at the rear end of said load beam section for enabling mounting said suspension to an actuator arm; and

a leaf spring section between said rear mount section and said load beam section for providing flexibility to said suspension.

14. An assembly as in claim 13, including a swage plate joined to said mount section for providing rigidity to said rear end of said suspension assembly.

15. An assembly as in claim 13, including front flanges formed along the edges of said load beam section and rear flanges formed along the edges of said rear mount section with a hiatus between said front and rear flanges.

16. An assembly as in claim 15, wherein said front flanges are formed with shallow U-shaped channels, and electrical wiring without tubing is positioned within said channels.

17. An assembly as in claim 13, including a cutout in said leaf spring section for providing flexibility to said suspension.

18. An assembly as in claim 1, further including an apertured extension formed at the rear end of said suspension assembly for enabling attachment to an actuator of a disk drive without a separate head arm to enable pivoting of said suspension assembly.

19. An assembly as in claim 1, including a damping material on said load beam.

20. An assembly as in claim 1, including at least one load/unload tab formed at the sides of said load beam section.

21. An assembly as in claim 2, wherein said top non-air bearing surface is substantially flat.

22. An assembly as in claim 21, wherein said lateral ear includes bent sections for contacting with said top surface of said slider.

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